

INTERMOUNTAIN POWER PROJECT MODIFIED BACK PLATE

DESIGN

- o FOUR 90° SEGMENTED PANELS.
- o SLIP-FIT TO THE INNER SLEEVE AND OUTER REGISTER ASSEMBLY.
- o TANGENTIAL 3/4 INCH GAP BETWEEN PANELS.
- o OVERLAP PLATES BETWEEN PANELS.
- o RADIAL CENTERING BARS.

ADVANTAGES

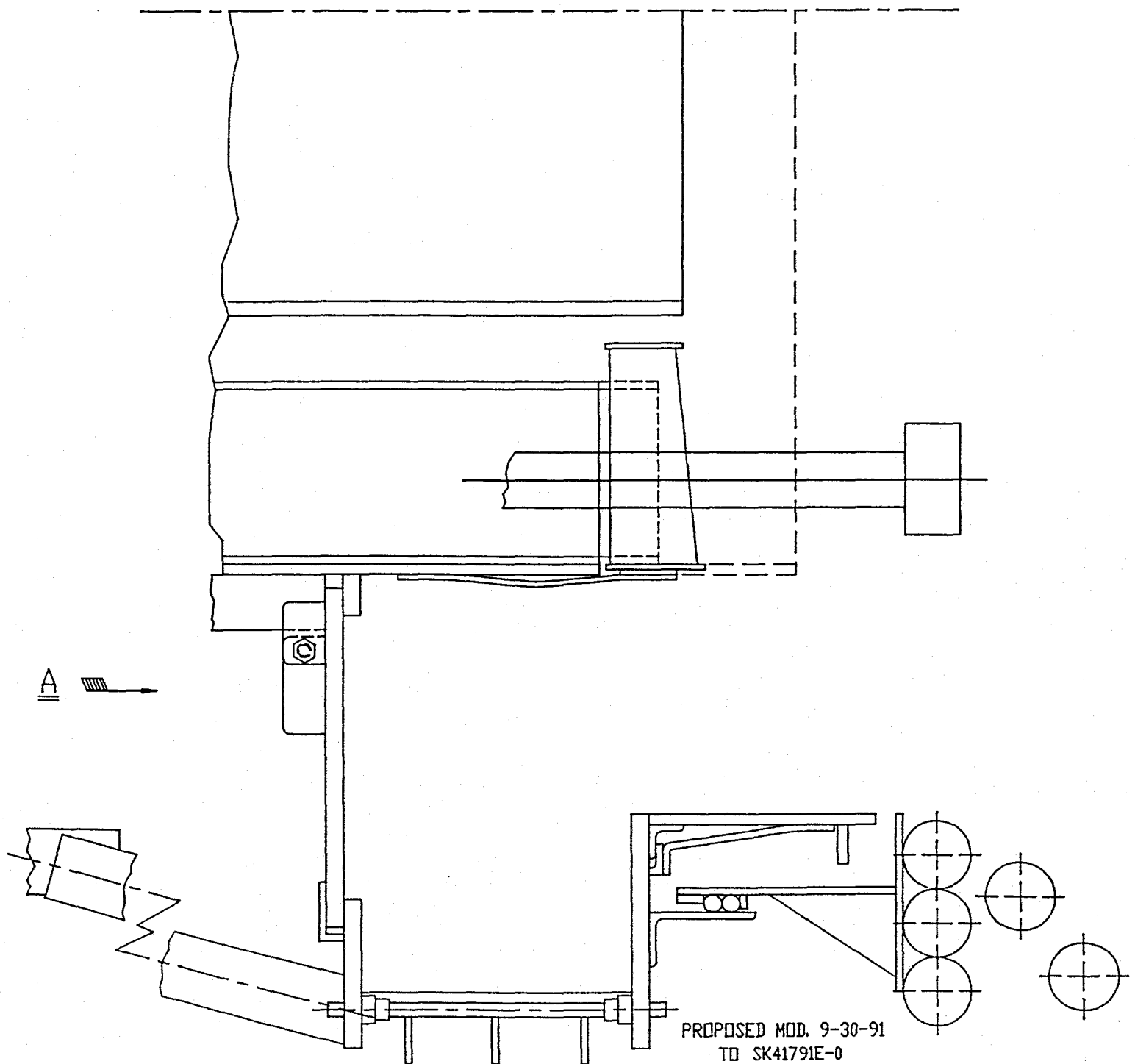
- o ELIMINATION OF PLATE CONING/WARPING.
- o THE GAPS ALLOW FOR 0.6 INCH THERMAL GROWTH AT THE INNER RADIUS.
- o OVERLAP PLATES PREVENT AIR-FLOW THROUGH GAPS.
- o RADIAL BARS TO CENTER PLATE DURING INSTALLATION AND TO PREVENT BINDING OF THE PLATE DURING THERMAL GROWTH.

IPP.MBP

IP7_003908

INTERMOUNTAIN POWER PROJECT

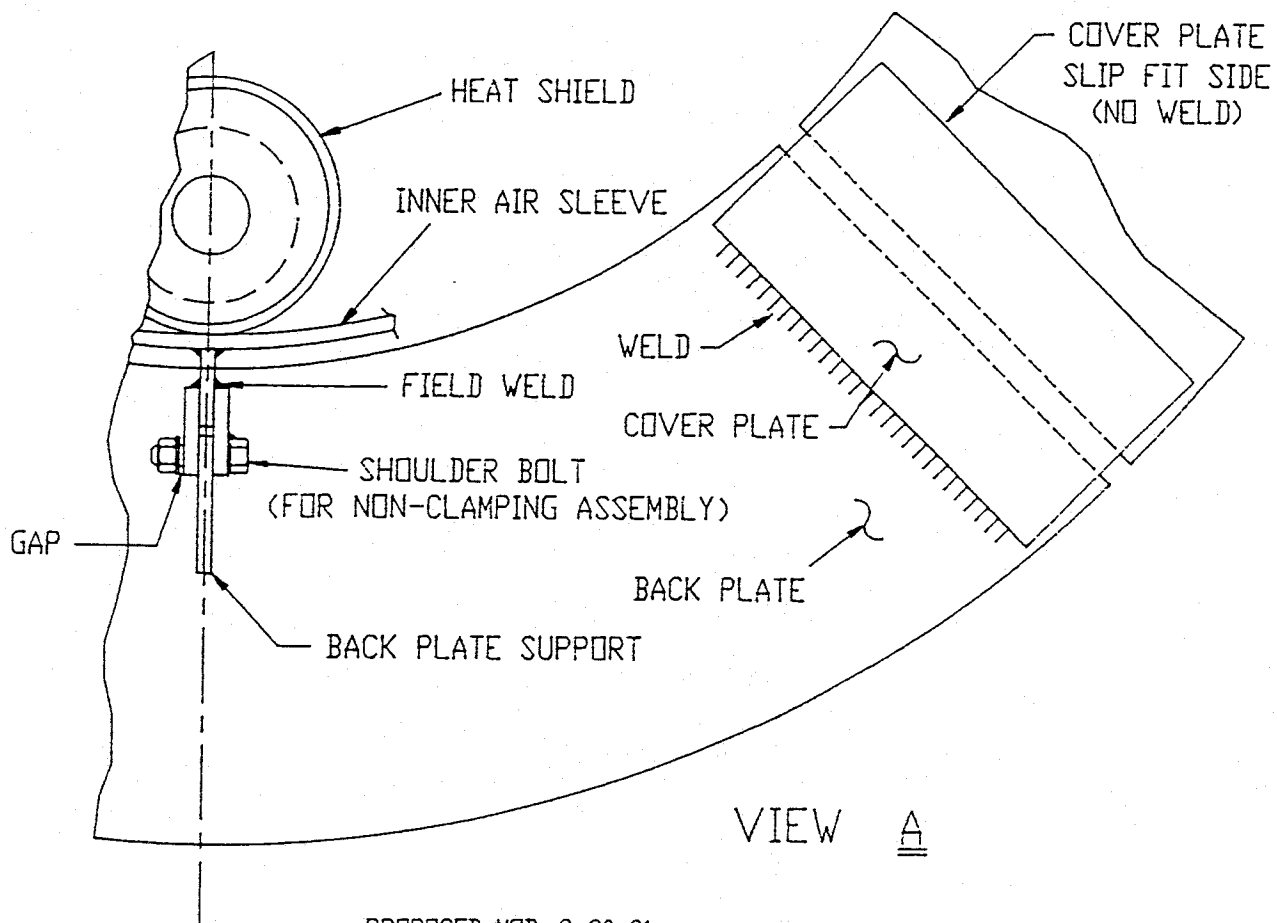
RECOMMENDED DESIGN



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INTERMOUNTAIN POWER PROJECT

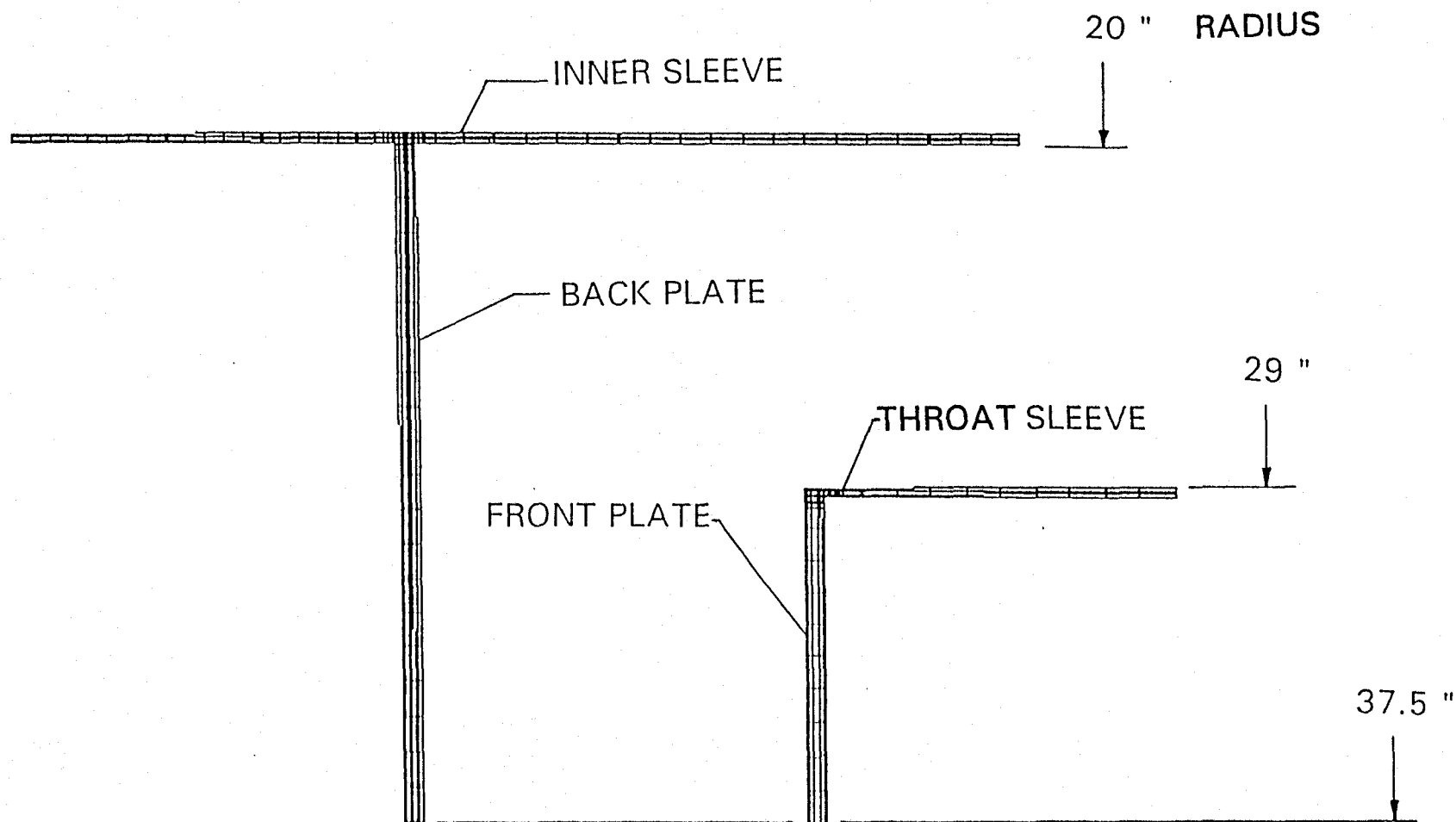
SEGMENTED BACK PLATE



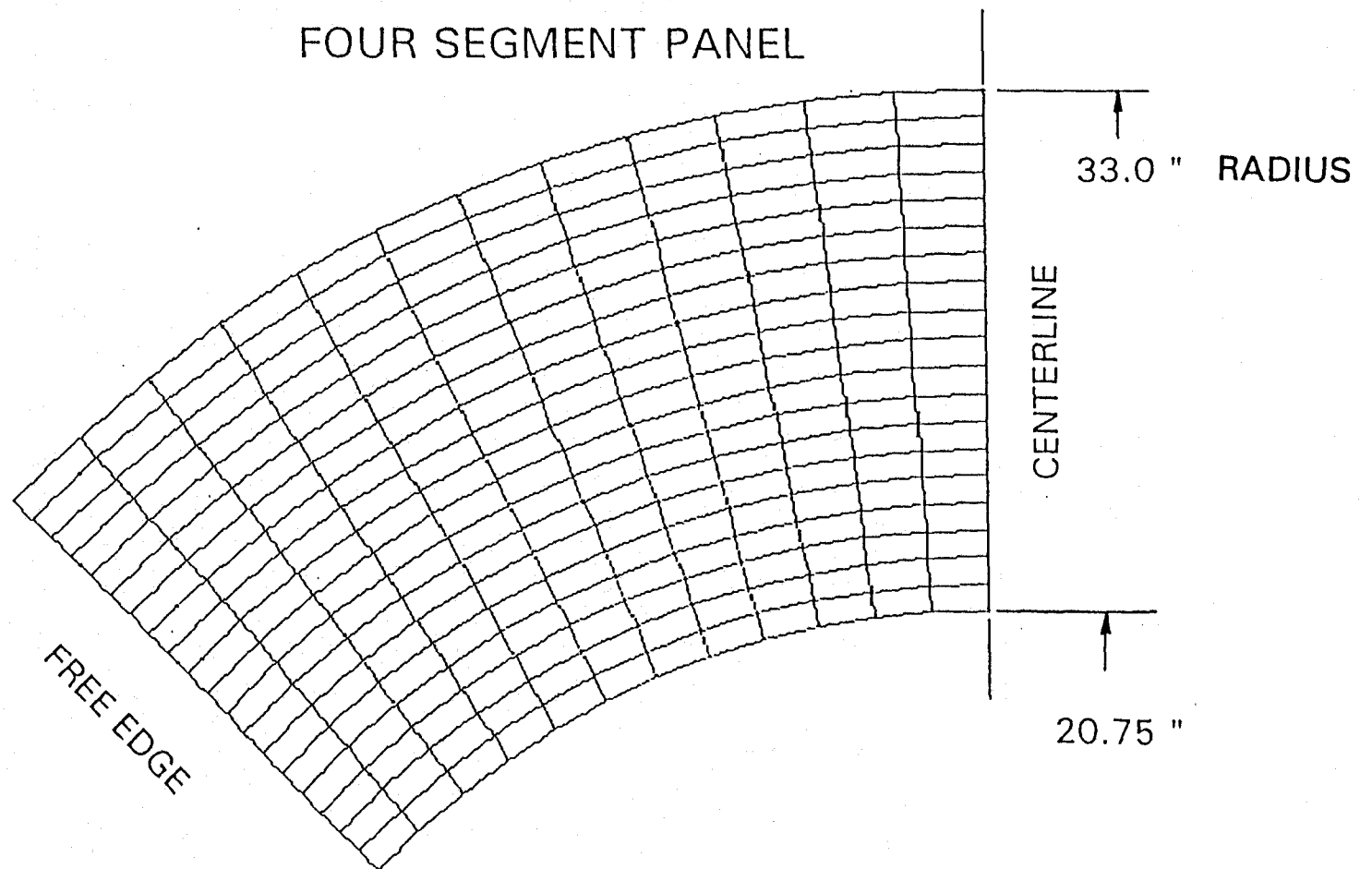
PROPOSED MOD. 9-30-91
TO SK41791E-0

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FINITE ELEMENT MODEL: EXISTING DESIGN

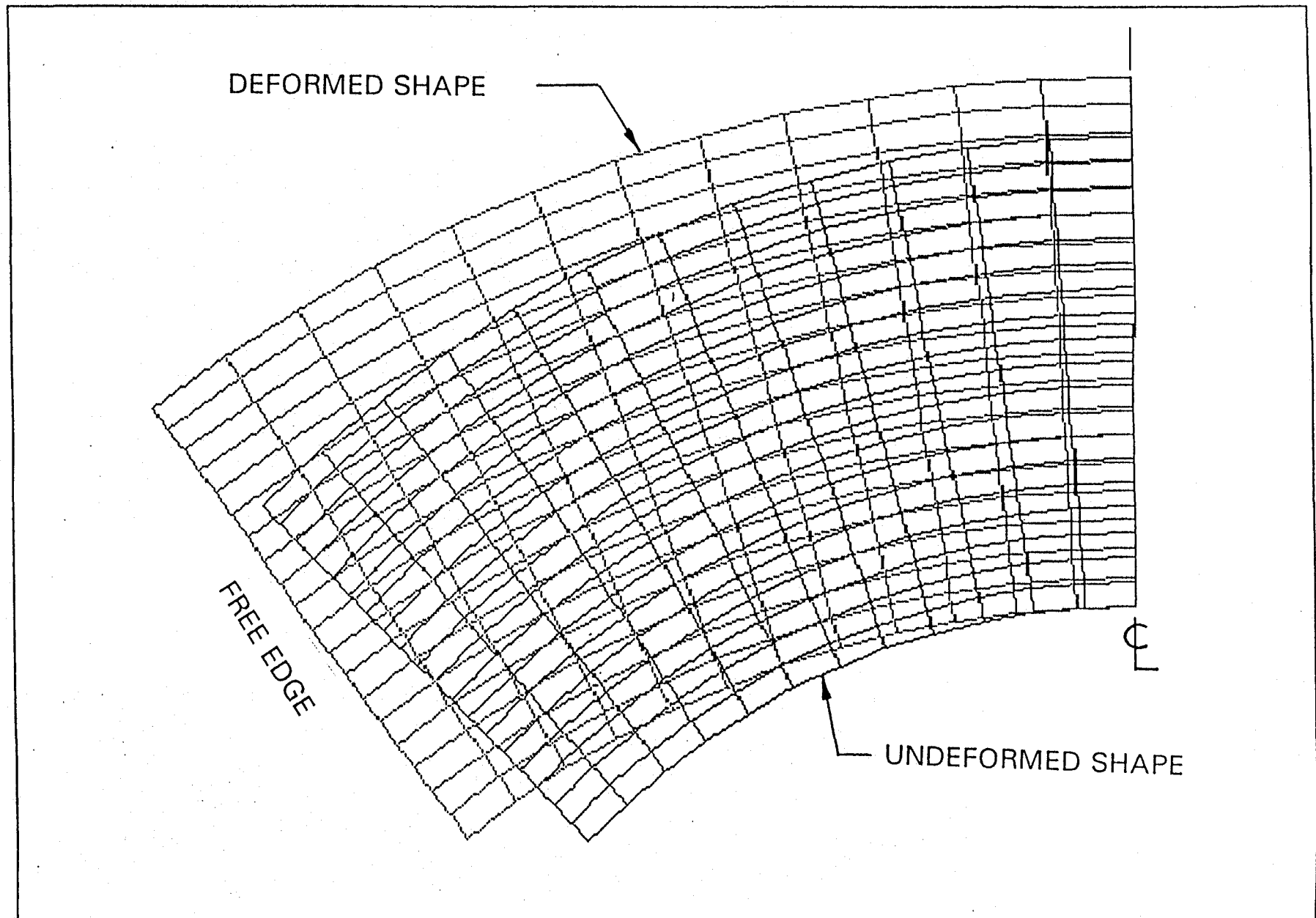


FINITE ELEMENT MODEL: MODIFIED BACKPLATE



RECOMMENDED BACK PLATE DESIGN
FOUR SEGMENT PANEL: OUT OF SERVICE

THERMAL GROWTH



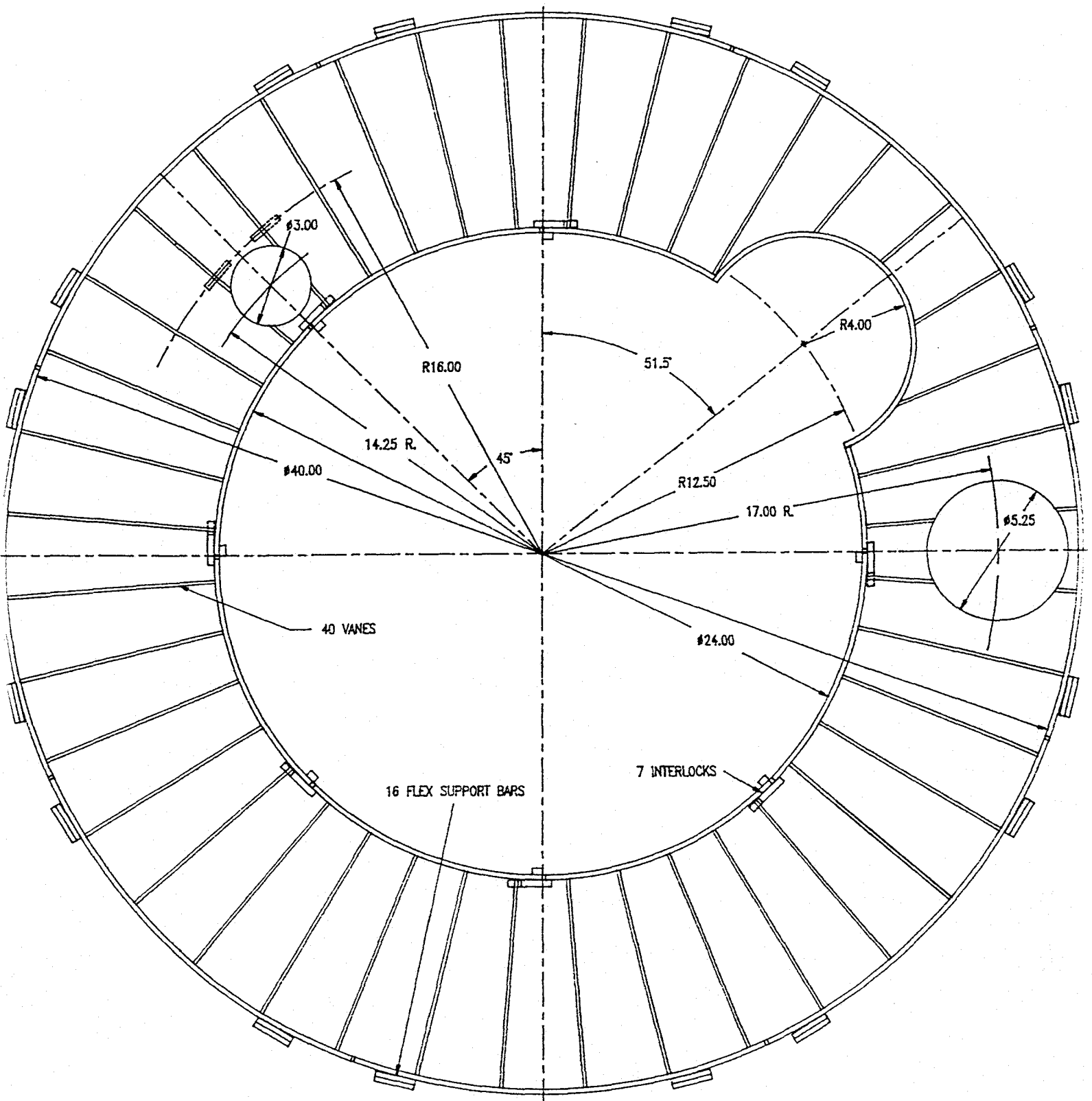
INTERMOUNTAIN POWER PROJECT SWIRLER

DESIGN

- o 40 VANES WELDED TO INNER AND OUTER SHROUD
- o ATTACHES TO ^{Inner Air Sleeve} ~~COAL NOZZLE~~ BY 16 FLEX BAR SUPPORTS
- o INNER SHROUD INTERLOCK PINNED TO SEGMENTS

ADVANTAGES

- o SEGMENTED DESIGN ALLOWS FOR THERMAL GROWTH BETWEEN THE OUTER SHROUD AND THE COAL NOZZLE
- o INTERLOCK PIN DESIGN PERMITS RADIAL AND TANGENTIAL THERMAL GROWTH WHILE CONSTRAINING AXIAL SEGMENT MOVEMENT



IPP SWIRLER

